

Notice of Allowability

Application No.

10/012,203

Examiner

Kanji Patel

Applicant(s)

YAMAMOTO, HIROSHI

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/28/06.
2. ☒ The allowed claim(s) is/are 1-2, 4-11, 13-20, 22-29, 31-43 and renumbered as 1-39.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dexter T. Chang on 9/12/06.

The application has been amended as follows:

In the claims:

See attached pages 2-14.

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1. (previously presented) A drawing method, comprising the steps of:

setting a value for expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;

generating a second image from the first image;

defining a coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit, wherein the coefficient is defined using a predetermined byte when the value for expressing the distance for every predetermined compositional unit is composed of at least three bytes;

synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and

outputting the synthesized image.

2. (original) The drawing method according to Claim 1, wherein the coefficient is extracted from a table having a plurality of coefficients gradationally composed therein using the value for expressing the distance for every predetermined compositional unit as an index.

3. (canceled)

4. (previously presented) The drawing method according to Claim 1, wherein the second byte is selected as the predetermined byte for the case that the value is composed of three bytes.

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5. (original) The drawing method according to Claim 1, wherein the coefficient is defined as a semi-transparent coefficient such that increasing a ratio of the second image as the distance from the virtual viewpoint increases.

6. (original) The drawing method according to Claim 1, wherein the second image is generated by subjecting the first image to a predetermined image processing.

7. (original) The drawing method according to Claim 6, wherein the predetermined image processing for the first image is blurring.

8. (original) The drawing method according to Claim 1, wherein the second image is generated using an arbitrary color.

9. (original) The drawing method according to Claim 1, wherein the predetermined compositional unit is a pixel.

10. (previously presented) A drawing device, comprising:

a distance setting means for setting a value for expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;

an image generation means for generating a second image from the first image;

a coefficient definition means for defining a coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit, wherein the coefficient is

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defined using a predetermined byte when the value for expressing the distance for every predetermined compositional unit is composed of at least three bytes;

a synthetic means for synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and

an output means for outputting the synthesized image.

11. (original) The drawing device according to Claim 10, wherein the coefficient definition means extracts the coefficient from a table having a plurality of coefficients gradationally composed therein using the value for expressing the distance for every predetermined compositional unit as an index.

12. (canceled)

13. (previously presented) The drawing device according to Claim 10, wherein the coefficient definition means selects the second byte as the predetermined byte for the case that the value is composed of three bytes.

14. (original) The drawing device according to Claim 10, wherein the coefficient definition means defines the coefficient as a semi-transparent coefficient such that increasing a ratio of the second image as the distance from the virtual viewpoint increases.

15. (original) The drawing device according to Claim 10, wherein the image generation means generates the second image by subjecting the first image to a predetermined image processing.

16. (original) The drawing device according to Claim 15, wherein the image generation means subjects the first image to blurring as the predetermined image processing.

17. (original) The drawing device according to Claim 10, wherein the image generation means generates the second image using an arbitrary color.

18. (original) The drawing device according to Claim 10, wherein the distance setting means sets the distance for every pixel as a compositional unit.

19. (previously presented) A computer-readable recording medium having recorded therein a draw processing program to be executed on a computer, the draw processing program comprising:

a distance setting step for setting a value expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;

an image generation step for generating a second image from the first image;

a coefficient definition step for defining a coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit;

a synthetic step for synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and

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an output step for outputting the synthesized image,

wherein the coefficient definition step further comprises a step for defining such coefficient using a predetermined byte for the case that the value for expressing the distance for every predetermined compositional unit is at least three bytes.

20. (original) The computer-readable recording medium having recorded therein a draw processing program according to Claim 19, wherein the coefficient definition step further comprises a step for extracting such coefficient from a table having a plurality of coefficients gradationally composed therein using the value for expressing the distance for every predetermined compositional unit as an index.

21. (canceled)

22. (previously presented) The computer-readable recording medium having recorded therein a draw processing program according to Claim 19, wherein the coefficient definition step further comprises a step for selecting the second byte as the predetermined byte for the case that the value is composed of three bytes.

23. (original) The computer-readable recording medium having recorded therein a draw processing program according to Claim 19, wherein the coefficient definition step further comprises a step for defining as such coefficient a semi-transparent coefficient such that increasing a ratio of the second image as the distance from the virtual viewpoint increases.

24. (original) The computer-readable recording medium having recorded therein a draw processing program according to Claim 19, wherein the image generation step further comprises a step for generating the second image by subjecting the first image to a predetermined image processing.

25. (original) The computer-readable recording medium having recorded therein a draw processing program according to Claim 24, wherein the image generation step further comprising a step for subjecting the first image to blurring as the predetermined image processing.

26. (original) The computer-readable recording medium having recorded therein a draw processing program according to Claim 19, wherein the image generation step further comprises a step for generating an image composed of an arbitrary color as the second image.

27. (original) The computer-readable recording medium having recorded therein a draw processing program according to Claim 19, wherein the predetermined compositional unit is a pixel.

28. (currently amended) A program execution device for executing a draw processing program, said program execution device including a memory wherein the draw processing program is stored, such draw processing program comprising:

a distance setting step for setting a value expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;

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an image generation step for generating a second image from the first image;
a coefficient definition step for defining a coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit;
a synthetic step for synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and
an output step for outputting the synthesized image,
wherein the coefficient definition step further comprises a step for defining such coefficient using a predetermined byte for the case that the value for expressing the distance for every predetermined compositional unit is at least three bytes.

29. (original) The program execution device for executing a draw processing program according to Claim 28, wherein the coefficient definition step further comprises a step for extracting such coefficient from a table having a plurality of coefficients gradationally composed therein using the value for expressing the distance for every predetermined compositional unit as an index.

30. (canceled)

31. (previously presented) The program execution device for executing a draw processing program according to Claim 28, wherein the coefficient definition step further comprises a step for selecting the second byte as the predetermined byte for the case that the value is composed of three bytes.

32. (original) The program execution device for executing a draw processing program according to Claim 28, wherein the coefficient definition step further comprises a step for defining as such coefficient a semi-transparent coefficient such that increasing a ratio of the second image as the distance from the virtual viewpoint increases.

33. (original) The program execution device for executing a draw processing program according to Claim 28, wherein the image generation step further comprises a step for generating the second image by subjecting the first image to a predetermined image processing.

34. (original) The program execution device for executing a draw processing program according to Claim 33, wherein the image generation step further comprises a step for subjecting the first image to blurring as the predetermined image processing.

35. (original) The program execution device for executing a draw processing program according to Claim 28, wherein the image generation step further comprises a step for generating an image composed of an arbitrary color as the second image.

36. (original) The program execution device for executing a draw processing program according to Claim 28, wherein the predetermined compositional unit is a pixel.

37. (currently amended) A draw processing program to be executed on a computer, said computer including a memory wherein the draw processing program is stored, said draw processing program comprising:

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a distance setting step for setting a value expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;

an image generation step for generating a second image from the first image;

a coefficient definition step for defining a coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit;

a synthetic step for synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and

an output step for outputting the synthesized image,

wherein the coefficient definition step further comprises a step for defining such coefficient using a predetermined byte for the case that the value for expressing the distance for every predetermined compositional unit is at least three bytes.

38. (previously presented) A drawing device comprising:

a distance setting unit for setting a value expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;

an image generation unit for generating a second image from the first image;

a coefficient definition unit for defining a coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit, wherein the coefficient is defined using a predetermined byte when the value for expressing the distance for every predetermined compositional unit is composed of at least three bytes;

a synthetic unit for synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and

an output unit for outputting the synthesized image.

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39. (previously presented) A drawing method, comprising the steps of:

setting a value for expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;

generating a second image from the first image;

defining a coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit;

synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and

outputting the synthesized image,

wherein the second image is generated by subjecting the first image to a predetermined image processing that is blurring.

40. (previously presented) A drawing method, comprising the steps of:

setting a value for expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;

generating a second image from the first image;

defining an α blending coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit;

synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and

outputting the synthesized image,

wherein:

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the value for expressing the distance for every predetermined compositional unit is composed of twenty four bits, and
the α blending coefficient is defined using successive predetermined bits of the twenty four bits.

41. (previously presented) A drawing device, comprising:
a distance setting means for setting a value for expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;
an imaged generation means for generating a second image from the first image;
a coefficient definition means for defining an α blending coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit;
a synthetic means for synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and
an output means for outputting the synthesized image,
wherein:
the value for expressing the distance for every predetermined compositional unit is composed of twenty four bits, and
the α blending coefficient is defined using successive predetermined bits of the twenty four bits.

42. (previously presented) A computer-readable recording medium having recorded therein a draw processing program to be executed on a computer, the draw processing program performing the steps of:

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setting a value for expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;
generating a second image from the first image;
defining an α blending coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit;
synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and
outputting the synthesized image,
wherein:
the value for expressing the distance for every predetermined compositional unit is composed of twenty four bits, and
the α blending coefficient is defined using successive predetermined bits of the twenty four bits.

43. (currently amended) A program execution device for executing a draw processing program, said program execution device including a memory wherein the draw processing program is stored, the draw processing program performing the steps of:

setting a value for expressing distance from a virtual viewpoint to every predetermined compositional unit of a first image;
generating a second image from the first image;
defining an α blending coefficient corresponding to the value for expressing the distance set to every predetermined compositional unit;

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synthesizing the first image and the second image based on the coefficient defined for every predetermined compositional unit; and
outputting the synthesized image,
wherein:
the value for expressing the distance for every predetermined compositional unit is composed of twenty four bits, and
the α blending coefficient is defined using successive predetermined bits of the twenty four bits.

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Response to Amendment

2. Applicant's amendment filed on 7/28/06 has been entered and made of record.

By this amendment, claims 3,12, 21 and 30 are canceled. Claims 1-2, 4-11, 13-20, 22-29 and 31-43 are pending in the application.

In response to applicant's amendment to claims 40-43, the rejection under 35 U.S.C. 112, first paragraph has been withdrawn.

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

Claims 1-2, 4-11, 13-20, 22-29, 31-43 (renumbered as 1-39) are allowed.

Claims 1-2, 4-11, 13-20, 22-29 and 31-39 were allowed in the last office action mailed on 5/5/06. Further, in response to applicant's amendment and persuasive arguments (see page 15 of the remarks filed on 7/28/06) with respect to claims 40-43 the rejection under 112, first paragraph has been withdrawn and all the pending claims (1-2, 4-11, 13-20 and 22-29, 31-43) are allowed now.


4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (571) 272-7454. The examiner can normally be reached on Monday to Thursday from 8 a.m. to 6:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bella, Matthew can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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9/16/06


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